INSTRUCTIONS

Safety Precautions

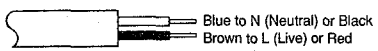
The rating plate and the safety caution are on the rear of the unit.

WARNING — DANGEROUS VOLTAGE INSIDE
WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

IMPORTANT

Connection to the mains supply plug in the United Kingdom.

Do not make any connection to the Larger Terminal coded E or Green. The wires in the mains lead are coloured in accordance with the following code:



If these colours do not correspond with the terminal identifications of your plug, connect as follows:
Blue wire to terminal coded N (Neutral) or coloured Black.
Brown wire to terminal coded L (Live) or coloured Red.
If in doubt — consult a competent electrician.

Omkopplaren OPERATE på denna apparat är sekundärt kopplad och skiljer inte apparaten från nätet i läge OPERATE OFF.

The OPERATE button does not completely shut off mains power from the unit, but switches operating current on and off.

BEMAERK: I stilling OFF er apparatet stadig forbundet med lysnettet Hvis det ønskes fuldstændig afbrudt skal netledningen trækkes ud.

This unit is produced to comply with Directives 76/889/EEC, 82/499/EEC, 87/308/EEC and Standard IEC Publ. 65.

IMPORTANT:
Please read the "Precautions" section of this instruction manual before installing or operating the recorder.

CAUTION

- When you are not using the recorder for a long period of time, it is recommended that you disconnect the power cord from the AC outlet.
- Dangerous voltage inside. Refer internal servicing to qualified service personnel. To prevent electric shock or fire hazard, remove the power cord from the AC outlet prior to connecting or disconnecting any signal lead or aerial.

WARNING

There are two different types of SECAM colour systems: SECAM-L, used in FRANCE (also called SECAM-West), and SECAM-B, used in Eastern European countries (also called SECAM-East).

1. This recorder can also receive SECAM-B colour television signals for recording and playback.
2. Recordings made of SECAM-B television signals produce monochrome pictures if played back on a video recorder of SECAM-L standard, or do not produce normal colour pictures if played back on a PAL video recorder with SECAM-B system incorporated (even if the TV set is SECAM-compatible).
3. SECAM-L prerecorded cassettes or recordings made with a SECAM-L video recorder produce monochrome pictures when played back with this recorder.
4. This recorder cannot be used for the SECAM-L standard. Use a SECAM-L recorder to record SECAM-L signals.

IMPORTANT: It may be unlawful to record or play back copyrighted material without the consent of the copyright owner.

VHS PAL HQ

- Only cassettes marked "VHS" can be used with this video recorder.
- HQ VHS is compatible with existing VHS equipment.

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How To Use This Instruction Manual

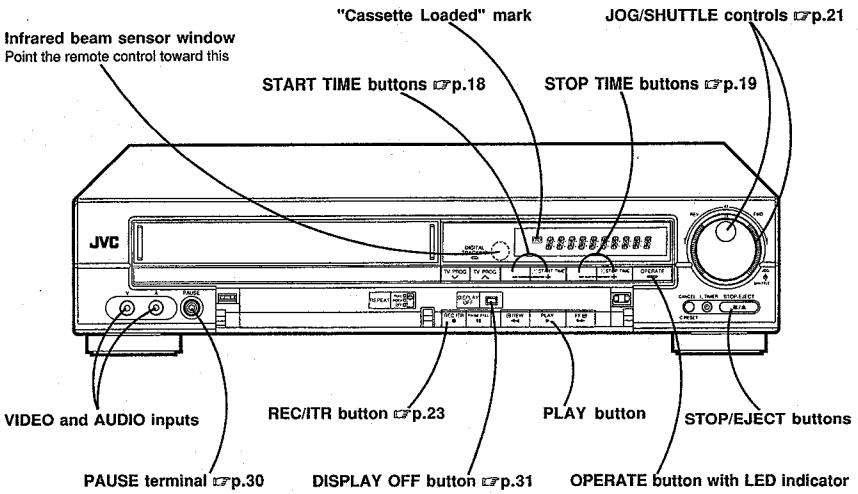
This instruction manual has been designed with both new and experienced users in mind. The first half offers detailed, step-by-step instructions for setting up your video recorder, and on using its basic functions. The second half provides instructions on the many other functions available on your video recorder. So just by following the instructions in the "Getting Started" and "Basic Operation" sections of this manual, you can master all of your recorder's basic functions, including timer-recording. Once you're sufficiently familiar with basic operation, or if you're already an experienced video user, you can move on to the more advanced functions introduced on the following pages. Related features have all been clustered together for easy reference, and their categories (playback, recording, timer, etc.) are easily recognisable by the symbol appearing in the page header. If you ever need to refer to another page for instructions or information, you will be told so by a ☞ mark pointing to the page number.

Remember, you must use your video recorder correctly to fully enjoy it. Please use this manual effectively. It's the surest and quickest way to unlock the full potential of your new JVC video recorder.

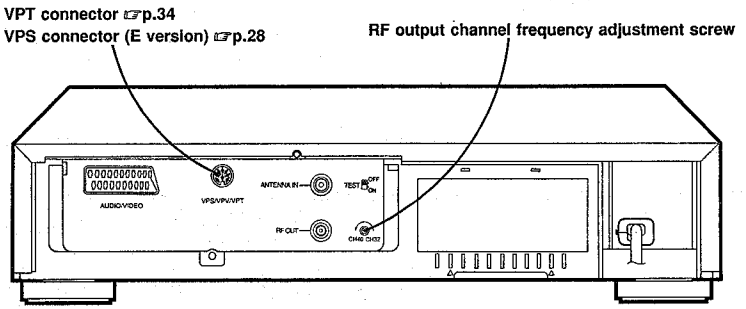
This instruction manual covers two model versions: "EG" and "E". Be sure to check which model you have purchased.
EG: VPS decoder built-in.
E: VPS decoder not built in. You must connect an optional adapter to take advantage of VPS service. ☞p.28

Controls, Indicators, And Connectors

Front Panel

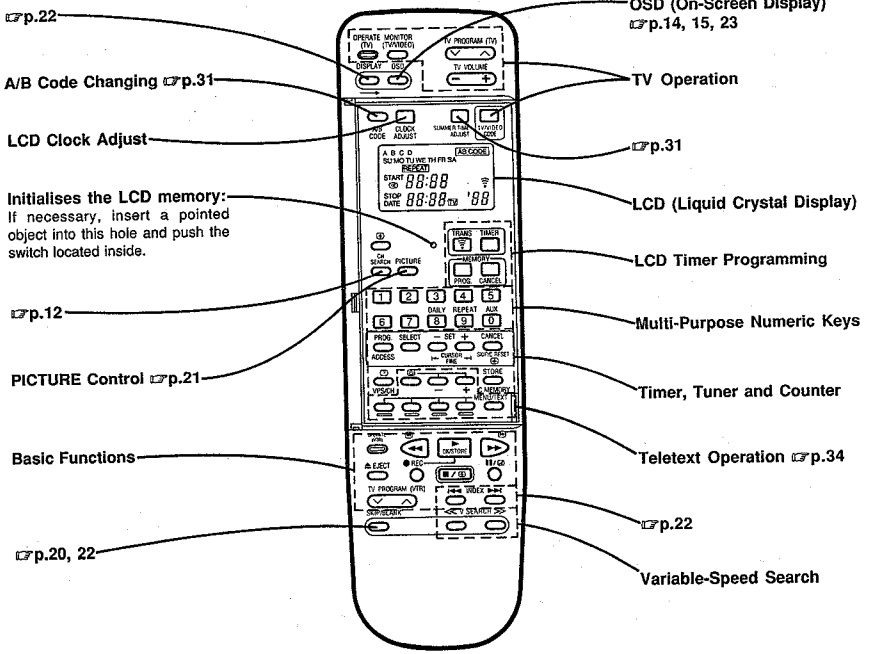


Back Panel



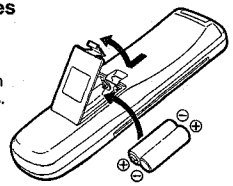
Wireless Remote Control

Open the remote's cover to access the buttons under the cover.



Installing Batteries

1. Open the battery compartment cover.
2. Insert 2 "R6"-size batteries (provided) in the correct directions.
3. Replace the cover.



NOTE:
Some buttons have additional labels (mostly pictograms) for teletext operations. You will find instructions for these in the Instruction Manual of the teletext adapter.

How To Use
The remote control can operate most of your video recorder's functions, as well as basic functions of TV sets of JVC and other brands. ☞p.33
- Point the remote control toward the sensor window.
- The maximum operating distance of the remote control is about 8 m.

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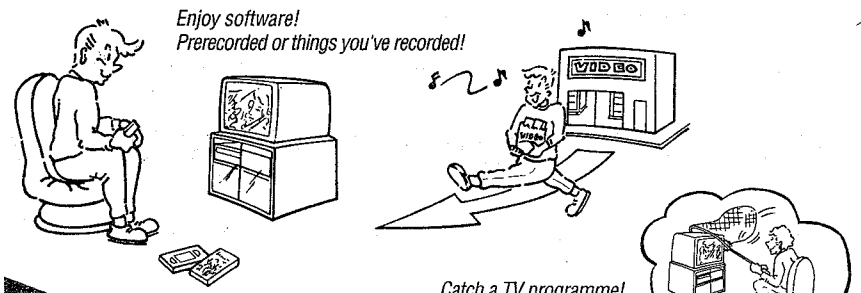
Getting To Know Your Video Recorder

The 3 Basic Ways Of Using Your Video Recorder



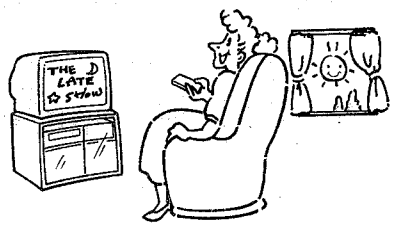
Enjoy software!
Prerecorded or things you've recorded!

Catch a TV programme!
With push-button ease!

Playback

With the video recorder properly connected to your TV set, viewing videos is as easy as pushing the Play button. Prerecorded VHS software is available just about anywhere, and your video recorder will let you enjoy it all. And, of course, you can enjoy those programmes you've recorded yourself too.

Record TV programmes while you're away.
Watch TV programmes when you want.



Recording

Just press the Record and Play buttons together on your remote control. The recorder will record whatever it is that you're watching. In other words, you can instantly "catch" a TV programme in progress to see it again later, show it to someone else, or keep it as part of your video library. Recording is possible for 4 hours on a single E-240 cassette.

Timer-Recording

By using the built-in timer, you can set your video recorder to record TV programmes for you while you're asleep, while you're away, or while you're doing something else. Then you can watch those programmes later, whenever it's convenient, whenever you want. This is what's called "timeshifting", and now you can do it the JVC way.

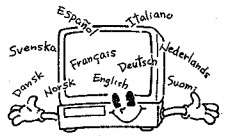
Some Other Functions On Your Video Recorder

Express Timer

Makes timer programming as easy as pressing three buttons on the recorder. Start time, stop time, engage — that's all!

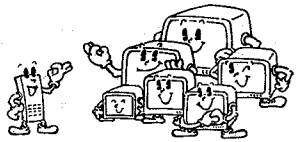
"Message" Display Panel

The video recorder "talks" to you from its message display panel. It's easy to understand what the recorder is doing at any time — a friendlier way to interact with your video deck.



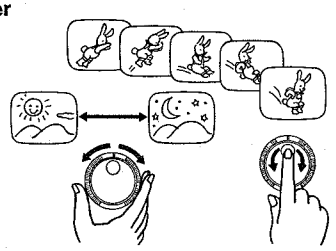
Multi-Language On-Screen Display

Ten languages to choose from. So you can check the engaged mode, program the timer, and more, while watching on-screen messages in your own language.



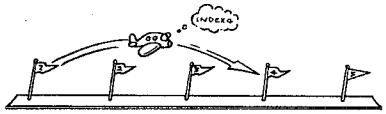
Multi-Brand-TV-Compatible Remote Control

Compatible with most major brands of televisions for basic control functions. Put an end to two-handed remote control.



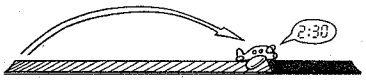
Jog/Shuttle Controls

Fast, accurate visual search from slow motion to fast motion, or frame-by-frame search, in either direction. Useful in editing or playback.



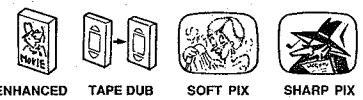
Index Search

Zooms to the index code number you specify. Easy location of index-coded programmes at the touch of a button. Index codes are automatically marked by the recorder at the beginning of each recording.



Blank Search

Lets you find the beginning of a non-recorded section automatically when you want to record on a partially-recorded tape. No more blind searching. Automatically displays the tape's remaining time too.



Picture Control

One-touch control over the type of video picture you want. Make it clearer, make it better for dubbing, make it softer, make it sharper — do it all with Picture Control.

Making The Right Connections

It's essential that your video recorder be properly connected. Follow these steps carefully. THESE STEPS MUST BE COMPLETED BEFORE ANY VIDEO OPERATION CAN BE PERFORMED.

A RECORDER-TO-TV CONNECTION

RF CONNECTION

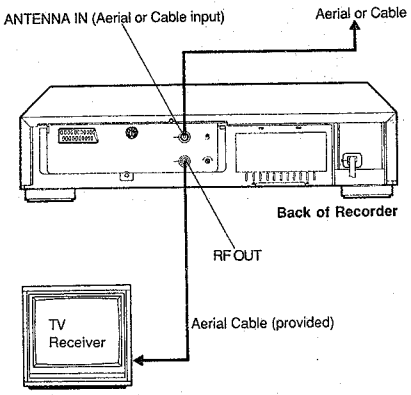
For TV sets without AV input terminals:

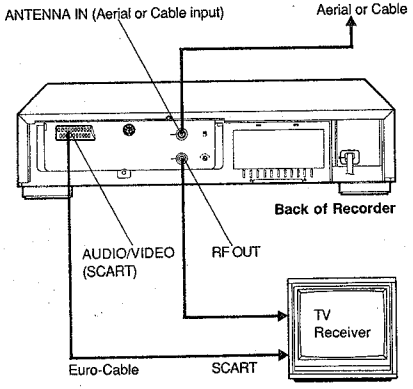
1. Connect the TV aerial cable to the recorder.
2. Connect the recorder to the TV's aerial terminal.

AV CONNECTION

For TV sets with AV input terminals:

1. Connect the aerial, recorder and TV as per "RF CONNECTION".
2. Connect the recorder to the TV's 21-pin SCART connector.



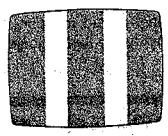


B ADJUST VIDEO CHANNEL (UHF 36)

With an RF connection, the video recorder sends picture and sound signals through the connecting cable to your TV on UHF channel 36.

TEST SIGNAL

1. Turn on the recorder.
2. Set the TEST switch to ON.
3. Set your TV to the video channel. Tune to the real channel 36, to bring the two vertical white bars on the screen most clearly.
   - Your TV should be set to the channel designated for use with a video recoder or to a spare channel if there is not a specified channel.
4. Reset the TEST switch to OFF.



NOTE:

If some interference noise is seen on the screen because of broadcasts on neighbouring channels, it is necessary to shift the video channel from UHF channel 36. This is possible for UHF channels 32 through 40. Consult your JVC dealer for making this adjustment.

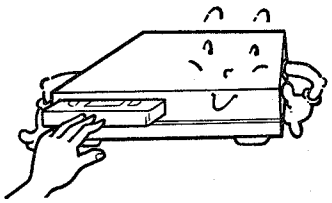
IMPORTANT:

To operate the recorder with your TV using an RF connection, it is always necessary to set your TV's channel to VIDEO CHANNEL. With an AV connection, set the TV to the VIDEO (or AV) mode.

Handling Video Cassettes

A LOADING A CASSETTE

1. Insert a cassette with its label side facing you.
   - If the cassette is not loaded firmly it will be ejected.



B UNLOADING A CASSETTE

1. Press EJECT.
   - If the cassette will not eject, check to see if "TIMER" is displayed on the message display panel. If it is, press the TIMER button to turn it off.

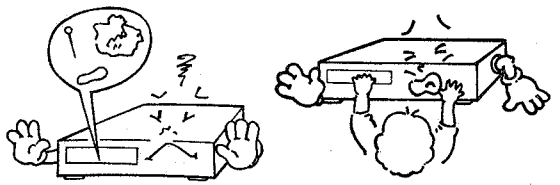
ENGLISH

NOTES:

- Be sure to insert the cassette firmly into the slot; otherwise it will be automatically ejected.
- The automatic loading mechanism will operate only when the cassette is inserted correctly.

WARNING

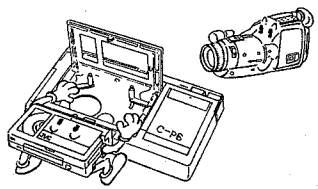
- Do not insert fingers or foreign objects into the cassette loading slot since this could lead to injury or damage to the mechanism. Be especially careful with children.
- Do not try to pull out a cassette once automatic loading has started.



Usable Cassettes

Full-Size VHS
E-30 (SE-30**)
E-60 (SE-60**)
E-90
E-120
E-180 (SE-180**)
E-240

Compact VHS*
EC-30 (SE-C30**)
EC-45 (SE-C45**)

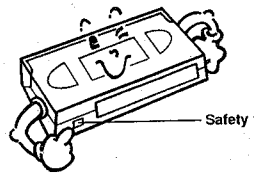


* Compact VHS camcorder recordings (PAL) can be played on this video recorder. Simply place the recorder cassette into a C-P6 Cassette Adapter and it can be used just like any full-sized VHS cassette.

** This video recorder can record on regular VHS and Super VHS cassettes. However, it will record and play back regular VHS signals only. It is not possible to play back a recorded Super VHS tape.

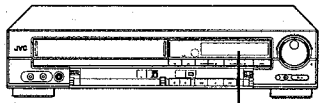
Accidental Erasure Prevention

To prevent accidental recording on a recorded cassette, remove its safety tab. To record on it later, cover the hole with adhesive tape.



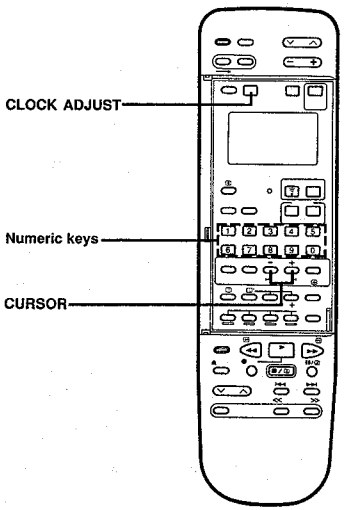
Setting The Clock

Since your video recorder bases all of its timer recording start and stop "decisions" on the time kept by its built-in clock, accurate setting of this clock is crucial for proper timer-recording results. Follow these instructions to set the remote control's LCD clock and transfer its contents to the recorder's clock.



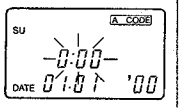
PLUG IN RECORDER

"SET CLOCK" is displayed



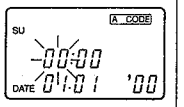
A LOAD BATTERIES (☞p.5)

1 Check the LCD.
- The time display section (0:00) will be blinking.



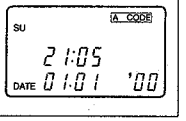
B START CLOCK SETTING

2 Press CLOCK ADJUST.
- Blinking digits will prompt you to items that can be set.



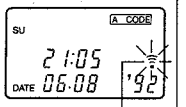
C INPUT THE TIME

3 Press the appropriate numeric keys.
- Example: For 21:05, press 2 1 0 5. Always enter "0" before single-digit entries.



D INPUT THE DAY/MONTH/YEAR

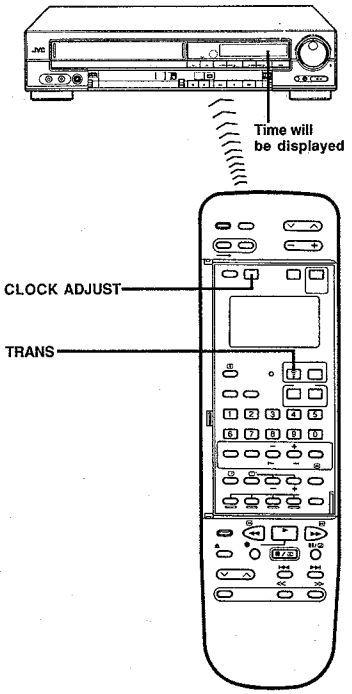
4 Press the appropriate numeric keys.
- Example: For 6th August, 1992, press 0 6 0 8 9 2. Always enter "0" before single-digit entries.
- After setting the year, the transfer-ready mark will appear and blink.



Transfer-ready mark

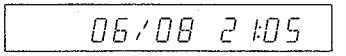
TO MAKE CORRECTIONS

Press either CURSOR button so that the item you want to change blinks. Re-input that item. Continue to step E.



E TRANSFER AND START THE CLOCK

5 Press TRANS.
- The day of the week will automatically appear.
- The remote control's clock will start. At the same time, the set data will be transferred to the recorder.



ENGLISH

AFTER A POWER OUTAGE

Since your video recorder has a 60-minute backup memory, it will not be affected by short power outages. If mains power is unavailable for over one hour, however, the recorder's display will revert to "SET CLOCK". In such a case, simply transfer the remote control's time to the recorder.

1 Press CLOCK ADJUST.
2 Press TRANS.

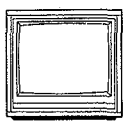
For quick "summer time" (Daylight Saving Time) adjustment, ☞p.31.

NOTES:

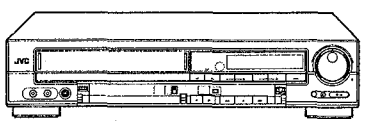
- If the day and month data is invalid (such as 31st April), the month digits are cleared automatically and the day digits will blink. Input again.
- If the year digits are automatically cleared in step D, it is possible that you have input 29th February for a non-leap year. Input again.
- When the batteries are exhausted, the time display will change to "0:00" and start blinking. Replace all the batteries and set the clock again.

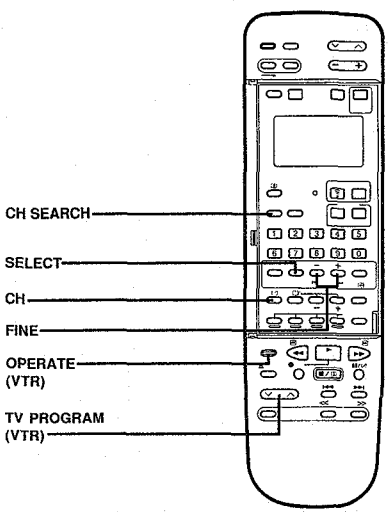
Setting The Tuner

The procedure introduced here lets you assign receivable channels in your area to channel positions on your video recorder's tuner. Once stored, these can be accessed with the TV PROGRAM (VTR) ∨/∧ button. During channel scanning, empty tuner channel positions will be skipped so you won't have to go through any "blank" channels to get to the one you want.



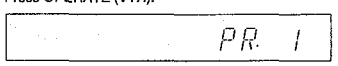
POWER ON;
SELECT VIDEO
CHANNEL (OR AV MODE)





A ENGAGE THE CHANNEL SET MODE

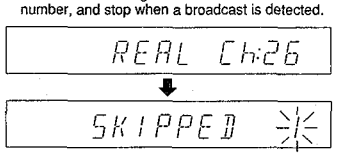
1 Press OPERATE (VTR).



2 Press CH.

B SEARCH FOR RECEIVABLE CHANNELS

3 Press CH SEARCH.
- Automatic scanning will start at the lowest channel number, and stop when a broadcast is detected.

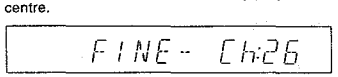


- Regular channels (Ch) are scanned first, then cable channels (CC).

C FINE-TUNE THE CHANNEL

- Check the picture on the TV screen, and fine-tune it if necessary. When the picture is clear, proceed to Step D.

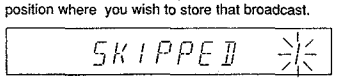
4 Press SELECT.
5 Press FINE (+ or –) so that the "–" sign appears at the centre.

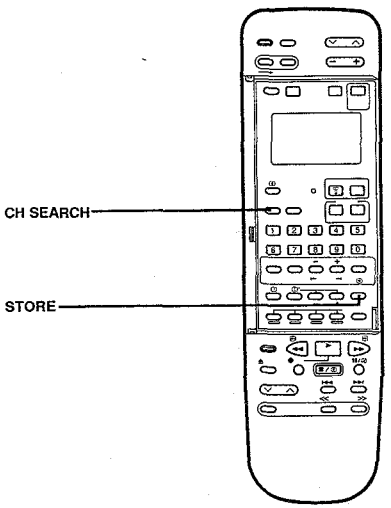


6 Press SELECT.

D SELECT A TUNER POSITION

7 Press TV PROGRAM (VTR) to select the tuner channel position where you wish to store that broadcast.





E STORE THE CHANNEL

8 Press STORE.

- This message indicates that UHF channel 26 has been stored into the tuner's channel position 1.

F CONTINUE

9 Repeat steps B through E for other receivable channels.

TO CHANGE PRESET CHANNELS

- If you have already preset some channels, do not use the automatic Channel Search function to change or add channels. ☞ p.32.

ATTENTION

The "real channel" numbers displayed on the recorder may not correspond to channel designations in your area.

ITALY

Display	Ch	13	14	15	16	17	18	19	20	11	12
Corresponding channel		A	B	C	D	E	F	G	H	H1	H2

BELGIUM

Display	CC	01	02.....10	11.....20
Corresponding channels		80(M1)	81(M2)...89(M10)	90(U1)...99(U10)

SWITZERLAND

Display	CC	75	76	77
Corresponding channel		X	Y	Z

NOTES:

- If you don't want to store the broadcast detected in Step B, simply press CH SEARCH to continue automatic scanning. Search will stop as soon as another broadcast is detected.
- Be sure to proceed to the next step within 60 seconds, otherwise Channel Search will be cancelled automatically. If this happens and you wish to continue channel setting, press CH SEARCH again. Channel scanning will resume, beginning with the next receivable channel.

MODE Mode Displays — What They Mean

Message Display Panel

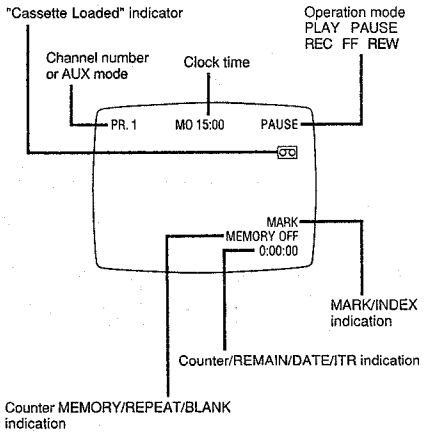
The operation mode is displayed on the recorder's display panel automatically. Displayed messages are designed to be self-explanatory. Here are some of the more common displays:

DISPLAY	MODE	DISPLAY	MODE
PLAY	Play	PAUSE (with channel number)	Record-Pause
STILL	Still	FWD SEARCH	Forward Search
FF	Fast-Forward	REV SEARCH	Reverse Search
REW	Rewind	FWD SLOW	Forward Slow
REC (with channel number)	Record	REV SLOW	Reverse Slow
TIMER REC	Timer-Recording	EJECT	Eject

For a more comprehensive list, ☞ p.35.

On-Screen Display

Operation modes (except PAUSE) are displayed on the TV screen only when the On-Screen Display function is set to ON. ☞p.15.



AUTOMATIC INDICATION

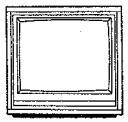
- **Channel, operation mode, and "Cassette Loaded" mark**
  When the status is changed, the corresponding indication is displayed on the screen for 5 seconds. The PAUSE mode indication, however, is displayed for as long as the Pause mode is engaged.
- **Time and date**
  When time setting is completed, time and date are displayed for 5 seconds.

MANUAL RECALL

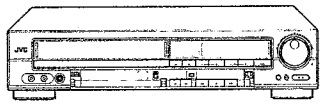
1 Press OSD (On-Screen Display).
- All indications corresponding to the current status is displayed for 5 seconds, leaving the counter information (counter, REMAIN or DATE) on the screen.
- To check only the counter information, press DISPLAY.

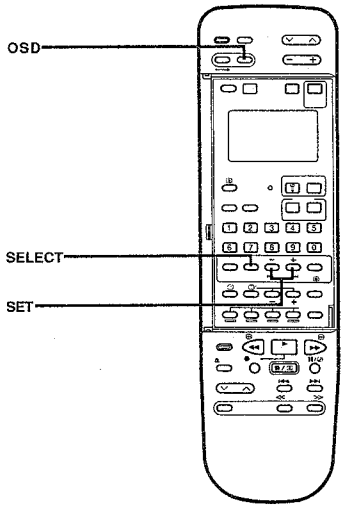
2 Press OSD to clear the counter display.

VCR On-Screen Set Up



POWER ON;
SELECT VIDEO CHANNEL
(OR AV MODE)





Language Select

Although the preset on-screen language is English, you can set your video recorder to display on-screen messages in a choice of 10 languages.

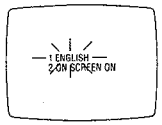
ENGLISH

A TURN ON THE RECORDER

1 Press OPERATE.

B ACCESS THE LANGUAGE SELECT MODE

2 Press OSD for longer than 2 seconds.
- The current language and On-Screen ON/OFF status are displayed on the screen.
- The displayed language blinks.



C SELECT THE LANGUAGE

3 Press SET + or – until your desired language is displayed.
- Available languages are: ENGLISH, DEUTSCH, FRANCAIS, ITALIANO, ESPANOL, NEDERLANDS, SVENSKA, NORSK, SUOMI, and DANSK, in the order they are called up.

4 Press OSD while the language is blinking.
- Now all on-screen messages will be displayed in the selected language.

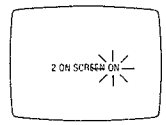
On-Screen Display Function ON/OFF

If you do not want on-screen displays, the function can be cancelled.

1 Press SELECT after step 2 above.
- The On-Screen ON/OFF status is displayed.

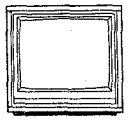
2 Press either SET button.

3 Press OSD while the status is blinking.
- Even with the function set to OFF, "PAUSE" is displayed for as long as the Pause mode is engaged. Of course, on-screen timer programming is not affected either.

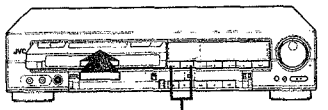


Playback

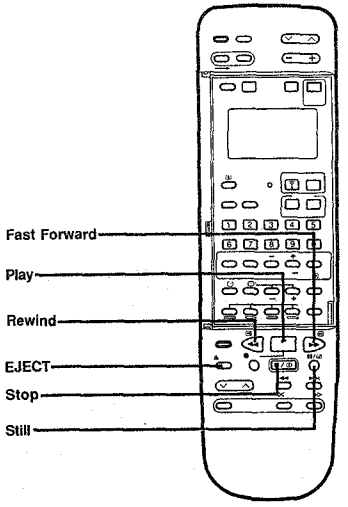
The easiest, most basic operation possible with your video recorder is tape playback. Already-recorded signals on a video tape are read by your video recorder and displayed on your TV just like a TV programme.



POWER ON;
SELECT VIDEO
CHANNEL (OR AV MODE)



TV PROG.



A LOAD A CASSETTE

1 Insert a cassette.
- The recorder power will come on automatically.
- If the safety tab on the cassette is removed, playback will start automatically.

B TO START PLAYBACK

2 Press ► (Play).

C TO STOP PLAYBACK

3 Press ■ (Stop).

D TO REWIND OR FAST-FORWARD

4 Press ◄◄ (Rewind) to rewind the tape.
5 Press ►► (Fast Forward) to fast-forward the tape.
- Press ■ (Stop) to stop rewind or fast-forward.

E TO EJECT THE TAPE

6 Press EJECT.

High-Speed Forward And Reverse Search

During Playback:

1 Press ►► (Fast Forward) for high-speed forward search.
2 Press ◄◄ (Rewind) for high-speed reverse search.
3 Press ► (Play) to resume normal playback.
- For short searches, keep ►► (Fast Forward) or ◄◄ (Rewind) pressed for more than 2 seconds. When released, normal playback will continue.

Still Playback And Frame Advance

During Playback:

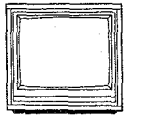
1 Press ❚❚ (Still) to view a still picture.
2 Press again to advance the picture frame by frame.
3 Press ► (Play) to resume normal playback.

NOTES:

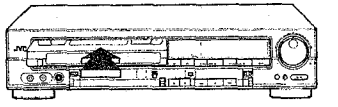
- The recorder automatically stops when still continues for more than 5 minutes.
- If the still picture is unstable (vertical jitter) use the recorder's TV PROG. (in lieu of V. LOCK) buttons to correct the picture.
- During search playback, some noise bars will appear.
- If noise bars appear during playback, correct using manual tracking. ☞ p.20.
- There is no audio during search, still, or frame-by-frame playback.
- The recorder automatically rewinds when the end of the tape is reached.

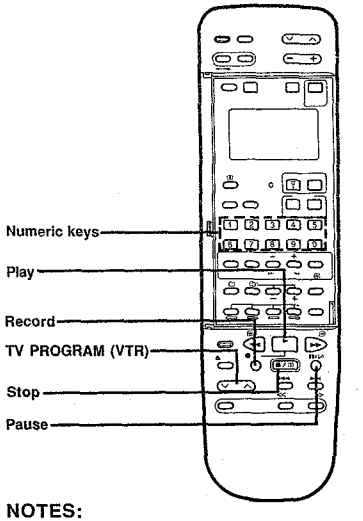
Recording

TV signals being received by the recorder's built-in tuner can be recorded onto a video tape. This is realtime video recording.



POWER ON;
SELECT VIDEO
CHANNEL (OR AV MODE)





A LOAD A CASSETTE

1 Insert a cassette with the safety tab in place.
- The recorder power will come on automatically.

B CHOOSE A PROGRAMME

2 Press TV PROGRAM (VTR) or the numeric keys to select the channel you wish to record.

C TO START RECORDING

3 Press ● REC (Record) and ► (Play) simultaneously.

D TO PAUSE RECORDING

4 Press ❚❚ (Pause).
5 Press ► (Play) to resume recording.

E TO STOP RECORDING

6 Press ■ (Stop).

To Watch Another Programme While Recording

During Recording:

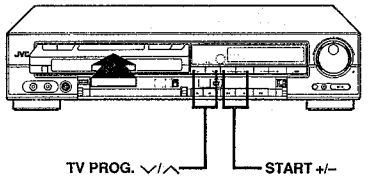
1 Use the channel controls on the TV to select the other channel you wish to view.
- The programme selected with the TV channel controls will appear on the TV screen while the one selected with the video recorder's channel controls will be recorded on the tape.

NOTES:

- To start recording with the recorder's REC/ITR button, press it once on its own. Pressing REC/ITR more than once activates the Off-Timer. ☞ p.23.
- After pause, when recording is resumed, a few frames recorded before the pause may be overlapped by the new recording. This is meant to reduce picture distortion and is not a malfunction.
- The recorder automatically stops when record-pause continues for more than 5 minutes.
- If the Record button does not work, check to see if the cassette's safety tab has been removed.
- When a VPS programme is being broadcast on the selected channel, "VPS" appears on the display panel. ☞ p.28 for information on VPS.
- The channel cannot be changed while recording is in progress. To change the channel, engage the record-pause mode, then change the channel.
- The recorder automatically rewinds when the end of the tape is reached during recording.

Timer-Recording

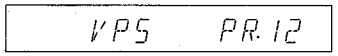
The "Express Timer" introduced here is the quickest method of programming your video recorder's timer. TV shows to be broadcast within 24 hours can be programmed for automatic recording simply by pressing three buttons (conveniently numbered) on your recorder's control panel. For timer programming using your remote control, ☞ p.24. TIMER PROGRAMMING IS NOT POSSIBLE UNLESS THE CLOCK HAS BEEN SET.



Express Timer Programming

A LOAD A CASSETTE

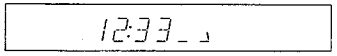
1. Insert a cassette with the safety tab in place.
   - The recorder power will come on automatically.
   - The recorder's display panel will show the channel being received.



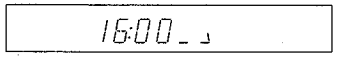
2. If you want to record another channel, press TV PROG. ∨/∧ to change the channel.

B SET THE START TIME

3. Press START +.
   - This engages the programme set mode, and the current time will appear.



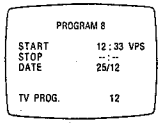
4. Press START +/– to set the start time.
   - START + advances the time and START – reverses the time.
   - Press briefly to change by 1 minute. Hold the button down to change by 30-minute increments.

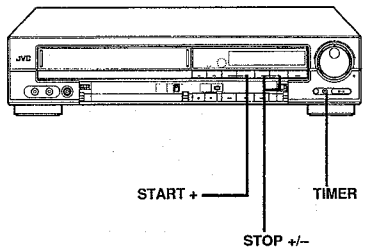


   - After the start time is set, "TODAY" or "TOMORROW" will be displayed for 3 seconds.

TO WATCH THE ON-SCREEN DISPLAY

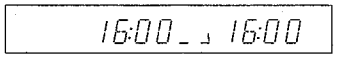
At step B, if the TV is on and is set to the video channel (or AV mode), the data you input will also be shown on the TV screen.



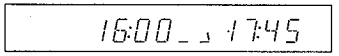


C SET THE STOP TIME

5. Press STOP +.
   - The start time will be transferred over to the stop time position automatically.

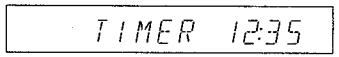


6. Press STOP +/– to set the stop time.
   - STOP + advances the time and STOP – reverses the time.
   - Press briefly to change by 1 minute. Hold the button down to change by 30-minute increments.



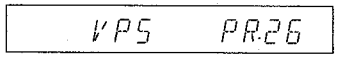
D SET TO TIMER MODE

7. Press TIMER.
   - The recorder will enter the timer mode and power will go off.



TO CHANGE CHANNELS

If needed, you can change the channel at any time during steps B and C. This changes the channel being received and the channel to be recorded.



TO DISENGAGE THE TIMER

For safety, your recorder disables all other functions while in the timer mode.

- To use your recorder, first disengage the timer mode by pressing TIMER again. Now all functions will be operable.
- To re-engage the timer, press TIMER.

TO CHECK PROGRAMMED SETTINGS

While in the timer mode, press START + to check the settings you have programmed into the Express Timer. Each time START + is pressed, the display will change: Start Time, Stop Time, Date, Channel, and "blank" again. DO NOT press START + while the timer mode is disengaged because this will clear the Express Timer's memory to make room for a new entry.

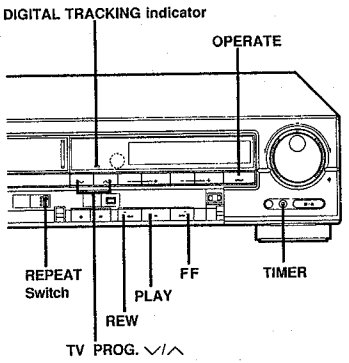
For other timer programming methods, ☞ p.24.
Any questions? ☞ p.28.

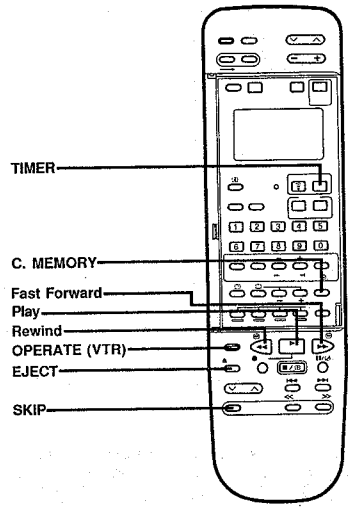
ATTENTION:

- If you have programmed the timer's PROGRAM 8 (via the on-screen programming facility that is available when an optional VPT adapter is connected, ☞ p. 34), using the Express Timer will clear that data from PROGRAM 8 and replace it with the Express Timer data.

For Playback

Take advantage of special functions possible with the recorder's controls or the remote control.





NOTE:
When a new tape is inserted, the recorder enters the automatic tracking mode automatically.

Repeat Playback (Recorder)

Your video recorder can automatically play back the whole tape or an index-marked portion 5 times repeatedly.

1 Set the REPEAT switch to FULL or INDEX.
- For Index Repeat playback, locate the index code at which you wish to start playback. (Index Search, ☞p.22.)

2 Press PLAY. Repeated playback will start. After repeating 5 times consecutively, playback will stop.
- Be sure to reset the REPEAT switch to OFF before pressing the PLAY button again; otherwise repeat playback will resume.

Manual Tracking (Recorder)

Your video recorder is equipped with automatic tracking control; the DIGITAL TRACKING indicator lights or blinks when automatic tracking is on. During playback, tracking can be adjusted manually using the TV PROG. buttons.

1 Press TV PROG. (∨ and ∧) simultaneously for manual override.
- The DIGITAL TRACKING indicator will go out.

2 Press TV PROG. (∨ or ∧) to adjust tracking.

3 Press TV PROG. (∨ and ∧) simultaneously to return to automatic tracking.

To adjust tracking during slow motion, simply press TV PROG. (∨ or ∧) to obtain the best picture.

Next Function Memory (Recorder and Remote Control)

For automatic start of playback after the tape is rewound:
1 Press ◄◄ (Rewind).
2 Press ► (Play) within 2 seconds.

For automatic power off after the tape is rewound:
1 Press ◄◄ (Rewind).
2 Press OPERATE (VTR) within 2 seconds.

For automatic eject after the tape is rewound: (Remote Control only)
1 Press ◄◄ (Rewind).
2 Press EJECT within 2 seconds.

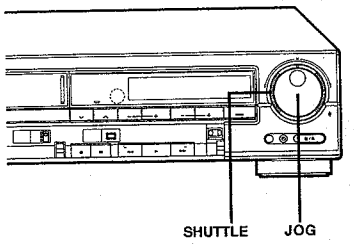
For automatic timer standby after the tape is rewound:
1 Press ◄◄ (Rewind).
2 Press TIMER within 2 seconds.

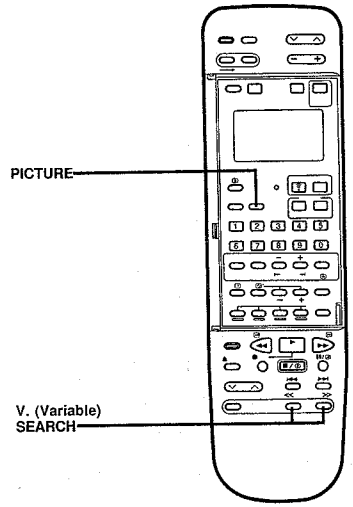
- If you want the "next function" to automatically start when the counter reads "0:00:00" (instead of at the beginning of the tape), press C. MEMORY so that the "M" mark appears before pressing ◄◄ (Rewind).

Skip Search (Remote Control)

Your recorder offers a simple way of skipping over unwanted sections of recorded TV programmes.

During Playback:
1 Press SKIP from 1 to 4 times.
This fast-motions through 30-sec. to 2-min. of tape.
- Playback resumes automatically.
- Press ► (Play) to cancel a Skip Search midway.





Variable-Speed Search, Slow Motion, And Jog Control

You can view pictures in slow to fast motion, or frame-by-frame, in either direction.

During Play or Still:
1 Turn the outer ring (SHUTTLE) in either direction. The farther the ring is rotated, the faster the search speed. Releasing the ring stops the picture in the Still mode.

or
1 Press either V.SEARCH button. Tape will move in the corresponding direction.
- The more times the button is pressed, the faster the search speed.
- To decrease speed, press the button for the opposite direction.

During Play or Still:
1 Turn the inner dial (JOG) in either direction for jog control. The tape moves forward or backward frame-by-frame at the speed with which the dial is turned.

To resume normal playback, press PLAY button.

Picture Control

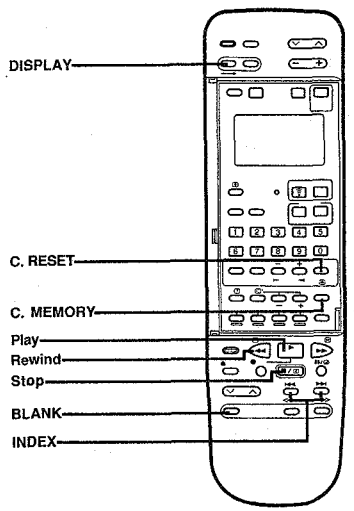
Your video recorder has a built-in video processor that lets you choose the type of playback picture that's best for any given application.

During Play:
1 Press PICTURE as many times as required to reach the desired setting.
- The display panel shows the setting for 5 seconds.

Display Panel	When To Use
ENHANCED	When viewing tapes with noise due to repeated playback, such as rental videos.
TAPE DUB	When editing to another recorder.
SOFT PIX	When you want a soft picture.
SHARP PIX	When you want a sharp picture.
OFF	When no modification is required.

NOTES:
- If noise bars appear during slow motion, correct using manual tracking. ☞ p.20.
- During variable-speed search, some noise bars will appear.

◀◀ ▶▶ For Tape Access



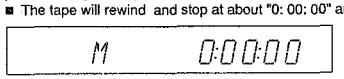
Realtime Tape Counter

Your recorder's tape counter displays the hours, minutes, and seconds of a taped programme. During playback, your recorder's display panel will show a counter reading unless you change it using the DISPLAY button. To reset the counter to "0:00:00" at any time press C. RESET. Also the counter is automatically reset whenever you load a new cassette.

Counter Memory (Remote Control)

During Playback:

1. Press C. RESET at a point you wish to locate later.
   - The counter will read "0: 00: 00".
2. Press C. MEMORY.
   - "M" will appear in front of the counter digits.
3. When you wish to return to that point, press ■ (Stop) and then press ◀◀ (Rewind).
   - The tape will rewind and stop at about "0: 00: 00" automatically.



4. To cancel the Counter Memory mode, press C. MEMORY.

Index Search (Remote Control)

This function gives you quick access to any one of 9 index codes in either direction. Your recorder automatically marks index codes at the beginning of each recording.

During Playback or Stop:

1. Press INDEX ⏮ or ⏭. "INDEX –1" or "INDEX +1" will be displayed and search will begin in the corresponding direction.
2. If you wish to access index codes 2 through 9, press INDEX repeatedly until the correct index number is displayed.
   - When the specified index code is found, playback will start automatically.

Blank Search (Remote Control)

This function lets you quickly locate the blank portion of a partially recorded tape.

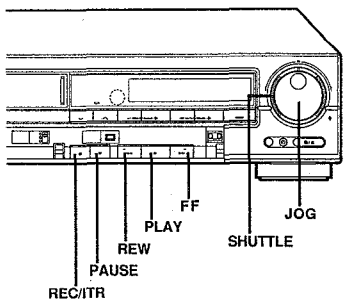
During Stop:

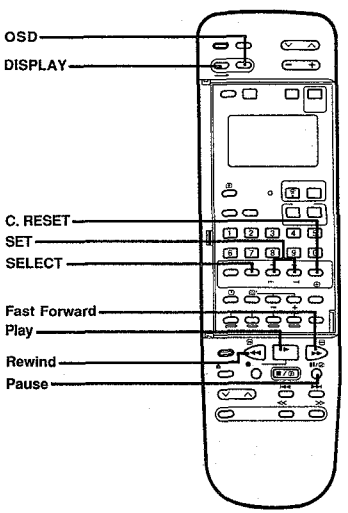
1. Press BLANK.
   - The recorder automatically fast-forwards or rewinds to the end of the recorded portion of tape, and stops.
   - The tape's remaining time is automatically displayed. Press DISPLAY to return to the realtime counter display.

NOTES:

- Press ▶ (Play) or ■ (Stop) to cancel Index Search or Blank Search.
- If the end of the tape is reached during Index Search, the mode is cancelled and the tape is rewound to the beginning.
- When a fully recorded tape is used for re-recording new material, Blank Search can be used to detect the end of the new material.

● For Recording





NOTES:

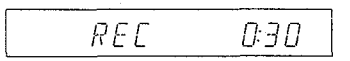
- With Retake, rainbow noise may occur in the rewound and re-recorded section.
- The remaining time is inaccurate while the display is blinking. When blinking stops, the remaining time is shown.

Instant Timer Recording (Off Timer) (Recorder)

You can start a recording and then set the recorder to shut off automatically after a set duration.

During Recording:

1. Press REC/ITR (on the recorder). A "REC 0:30" indication appears, advising that power will switch off after 30 minutes.



2. Press REC/ITR again to delay the off-time by 30-minute increments (up to 4 hours).
   - For a more precise setting, use the SELECT/SET buttons on the remote control unit to set the exact time required (possible up to 4 hours and 59 minutes).

Retake (Recorder and Remote Control)

You can cut out unwanted parts of a TV programme while you're recording it.

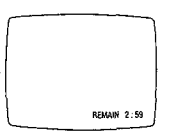
During Recording:

1. Press PAUSE.
2. Press FF or REW for normal-speed search to locate the beginning of the unwanted part.
   - When using the recorder's JOG/SHUTTLE control, turn the JOG dial or SHUTTLE ring in either direction.
   - Release to return to Record-Pause mode.
3. Press PLAY when you wish to resume recording.

Remaining Tape Time Indication (Recorder and Remote Control)

When you need to know the tape's remaining time.

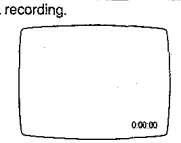
1. Press DISPLAY until "REMAIN" appears on the screen. Approximate remaining tape time is displayed.
2. To clear the screen, press OSD.
   - The display panel also shows remaining tape time, but, during recording, changes back to the "REC" mode display after 5 seconds.



Elapsed Recording Time Indication (Recorder and Remote Control)

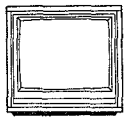
When you need to know the exact time of a recording.

1. Press C. (Counter) RESET to reset the counter to "0:00:00", and then start recording.
2. Press DISPLAY anytime when you want to check the elapsed recording time.
3. To clear the screen, press OSD.

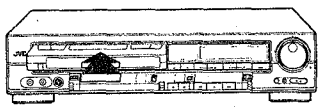


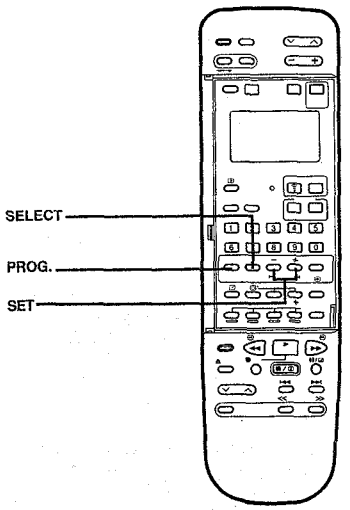
For Timer Recording

The on-screen and LCD timer programming methods are introduced here. Both have different advantages. With on-screen programming, you can follow easy-to-see guides on your TV screen. With LCD programming, you can preserve the programmed data in memory and transfer it to the recorder anytime when necessary. TIMER PROGRAMMING IS NOT POSSIBLE UNLESS THE CLOCK HAS BEEN SET.



POWER ON;
SELECT VIDEO CHANNEL
(OR AV MODE)





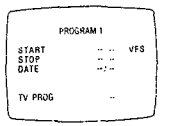
On-Screen Timer Programming

A LOAD A CASSETTE

1 Insert a cassette with the safety tab in place.
- The recorder power will come on automatically.

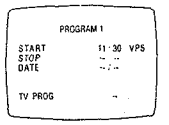
B ACCESS THE ON-SCREEN PROGRAM DISPLAY

2 Press PROG.
- You are ready to input data into Program No. 1.
- To change the program number (1 – 7), press SET.



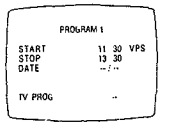
C INPUT THE START TIME

3 Press SELECT, and then SET to input the hour.
4 Press SELECT, and then SET to input the minute.



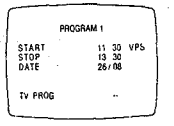
D INPUT THE STOP TIME

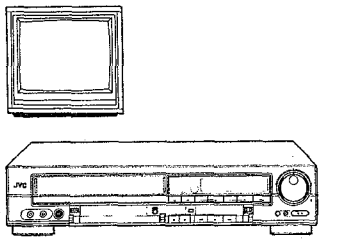
5 Press SELECT, and then SET to input the hour.
6 Press SELECT, and then SET to input the minute.

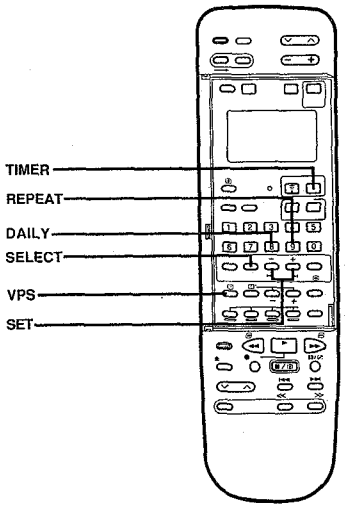


E INPUT THE DATE

7 Press SELECT, and then SET to input the day.
8 Press SELECT, and then SET to input the month.



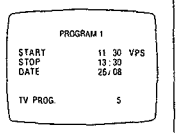




NOTE:
The data you input will also be shown on the message display panel.

F INPUT THE CHANNEL NUMBER

9 Press SELECT, and then SET to input the channel.
- The screen colour changes to green.
- Normally, you should leave "VPS" on so you can take advantage of VPS recording*. You can cancel VPS by pressing the VPS button whenever the memory program is open. If you have any questions about VPS, ☞p.28.



G END ONE PROGRAM

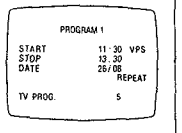
10 Press SELECT.
- The program number will blink.
- To make corrections, advance with SELECT to the item you wish to change and input new data with SET.
- If you need to set another program, press SET and repeat steps C through G.

H SET TO TIMER MODE

11 Press TIMER.
- The recorder will enter the timer mode and power will go off.
- To release the timer mode, press TIMER again.

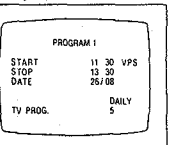
Variations in Step E (Weekly Program)

This function lets you set the recorder to timer-record at the same time on the same day every week. Use it to record weekly serials.
- First press REPEAT (numeric key "9") and then enter the date.



Variations in Step E (Daily Program)

This function lets you set the recorder to timer-record at the same time everyday. Use it to record daily serials.
- To record a daily serial starting on the day of setting, press DAILY (numeric key "8") and then press SELECT.
- To record a daily serial starting on a certain day, press DAILY and then enter the date.



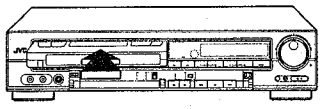
TO MAKE CORRECTIONS

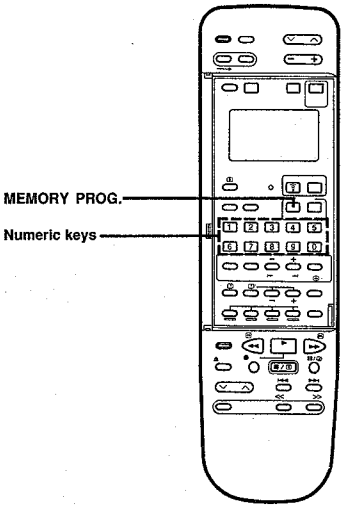
Press SELECT so that the item you want to change blinks, and press SET to set the new data.

Any questions? ☞p.28

* VPS adapter is required on "E" version.

For Timer-Recording (cont'd)





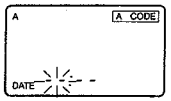
LCD Timer Programming

A LOAD A CASSETTE

1 Insert a cassette with the safety tab in place.
- The recorder power will come on automatically.

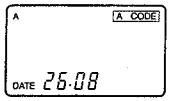
B ACCESS THE LCD TIMER PROGRAM

2 Press MEMORY PROG. (Program A)
- Four programs (A, B, C, and D) are available. To select another program, press MEMORY PROG.



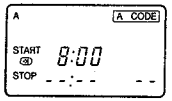
C INPUT THE DATE

3 Press the appropriate numeric keys.
- Example: For 26th August, press 2 6 0 8.



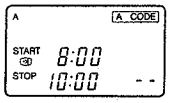
D INPUT THE START TIME

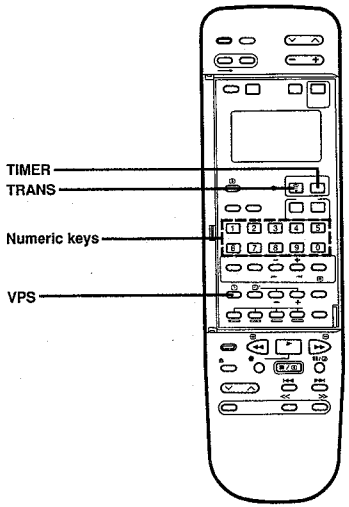
4 Press the appropriate numeric keys.
- Example: For 8:00, press 0 8 0 0.



E INPUT THE STOP TIME

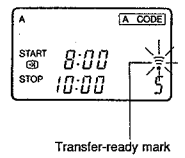
5 Press the appropriate numeric keys.
- Example: For 10:00, press 1 0 0 0.





F INPUT THE CHANNEL NUMBER

6 Press the appropriate numeric keys.
- Example: For channel 5, press 5.
- After the channel has been entered, the transfer-ready mark will appear and blink.
- Normally, you should leave " ⊠ " on so you can take advantage of VPS recording*. You can cancel VPS by pressing the VPS button whenever the memory program is open. If you have any questions about VPS, ☞p.28.



G TRANSFER THE DATA TO THE RECORDER

7 Press TRANS with the remote control directed to the recorder's Remote Sensor window.
- You will see "PROGRAM 1" on the display panel, telling you that the data has been successfully transferred to the recorder's Program 1 memory.

H SET TO TIMER MODE

8 Press TIMER.
- The recorder will enter the timer mode and power will go off.
- To release the timer mode press TIMER again.

Variations in Step C (Weekly Program)

This function lets you set the recorder to timer-record at the same time on the same day every week. Use it to record weekly serials.
- First press numeric key "9" (REPEAT) and then enter the date.

Variations in Step C (Daily Program)

This function lets you set the recorder to timer-record at the same time every day. Use it to record daily serials.
- To record a daily serial starting on the day of setting, press numeric key "8" (DAILY) and then press CURSOR → until the display changes to time input mode.
- To record a daily serial starting on a certain day, press numeric key "8" (DAILY) and then enter the date.

TO MAKE CORRECTIONS

During steps C – F, press either CURSOR button so that the item you want to change blinks, and enter new data.

Any questions? ☞ p.28.

* VPS adapter is required with "E" version.

ENGLISH

For Timer-Recording (cont'd)

On Checking And Cancelling Programs

Since executed programs are automatically cleared from memory (except those for daily and weekly serials), cases where the entire memory is full should be rare. If this should happen, check the preset programs and cancel one or more to make room for the new program(s) you wish to input.

TO CANCEL A PROGRAM FROM THE RECORDER'S MEMORY

1. Press PROG.
   - Program 1 is displayed with the number blinking.
2. Press SELECT to review the program contents in succession.
3. Press CANCEL to erase the program from memory.
   - You can press CANCEL at any stage while the program is open.
   - To erase another program, press SET when a blinking program number is displayed.

TO CANCEL A PROGRAM FROM THE REMOTE CONTROL'S LCD MEMORY

1. Press MEMORY PROG. until you find a program you wish to cancel. (A, B, C, or D.)
2. Press MEMORY CANCEL to erase that program from the LCD memory.

Some Facts On Timer Operation

- If the end of the tape is reached during timer-recording, the cassette is automatically ejected and recorder's power is switched off with "TIMER REC" and "TAPE END" flashing alternately on the message display panel.
- When timer-recording is successfully completed, the recorder's power is automatically switched off.
- Since the timer starts and stops recording based on the time being kept by the recorder's built-in clock, the clock's time must be accurate for correct timer-recording results.

VPS Recording

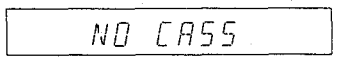
Now available from some TV stations, VPS (Video Program System) is a service designed to assure safe, accurate timer-recording. With this system, special code signals are transmitted together with the audio/video signals. These code signals control your video recorder and have precedence over times you preset in the timer. This means that your recorder will start and stop recording when the preset TV programmes actually start and end — even if the broadcast time of a preset TV programme is changed. If your video recorder is an "EG" model, it already incorporates a built-in VPS decoder. If your recorder is an "E" model and you want to take advantage of this service (if available), you must connect an optional adapter (☞ Specifications) to the VPS/VPV/VPT connector on the rear panel of your recorder.

TO USE VPS SERVICE

- For each timer program, the initial setting is "VPS ON" and you will see "VPS" on the display panel together with a channel number. You do not have to cancel "VPS" even for non-VPS programmes, because those programmes will be recorded at the preset times.
- To cancel "VPS", press the VPS button. Pressing the VPS button alternates the setting, and "VPS ON" or "VPS OFF" is displayed for 2 seconds.
- When you open the LCD timer memory, the LCD display always shows "⊙". If your video recorder is an "E" version and you have not connected a VPS adapter, be sure to cancel "⊙" by pressing the VPS button before transferring the memory data to the recorder.

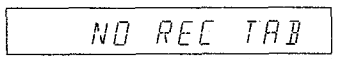
Error Messages

The following error messages may appear on the message panel when you press the TIMER button to engage the Timer Standby mode. Here's why, and what you should do.



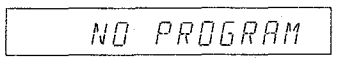
- Displayed for 5 seconds and the Timer Standby mode is cancelled.

WHY: There is no cassette in the recorder.
WHAT TO DO: Insert a cassette. Press TIMER again.



- Displayed for 5 seconds. The Timer Standby mode is cancelled.

WHY: The inserted cassette has its safety tab removed.
WHAT TO DO: Eject that cassette. Insert a cassette with its safety tab intact. Or cover the safety tab hole of the cassette with adhesive tape and re-insert it. Press TIMER again. ☞p.9.

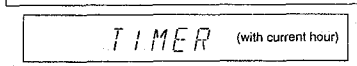


- Displayed for 5 seconds. The Timer Standby mode is cancelled.

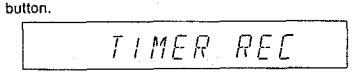
WHY: There are no preset programs in memory.
WHAT TO DO: Check the programmed data and re-program it as necessary. Press TIMER again.

Other Messages

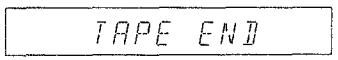
The following messages may also be encountered during timer-recording.



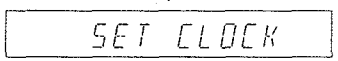
WHY: The recorder is in the Timer Standby mode. This is the normal display you should see when you press the TIMER button.



WHY: Normal display while timer-recording is in progress.



WHY: If this and "TIMER REC" are alternately displayed, it means that the end of the tape was reached while timer-recording was in progress. Therefore, the preset program may not be recorded in its entirety.



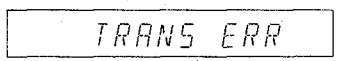
WHY: This means the clock must be set. It's displayed when time-keeping is terminated due to a power failure or because the recorder's power plug was pulled from the AC outlet.
WHAT TO DO: Set the clock. ☞p.10.

- If power was interrupted, it's also likely that all preset timer programming data has been erased. Please check and re-program as necessary.

The following messages may be encountered when the TRANS button of the remote control is pressed. ☞p.27.

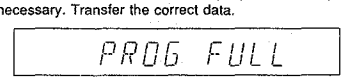
- Displayed for 2 seconds.

WHY: The transferred data has been stored in that program number. (The smallest vacant program number is always selected automatically.)



- Displayed for 5 seconds.

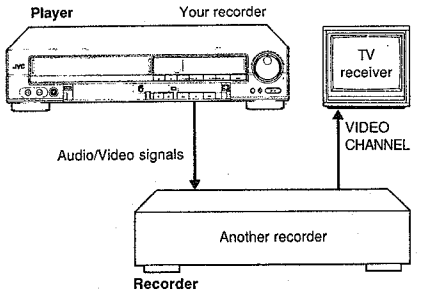
WHY: Data was not successfully transferred. The program may have been incorrectly preset, or the recorder's clock has not been set.
WHAT TO DO: Check the LCD program, and re-program as necessary. Transfer the correct data.

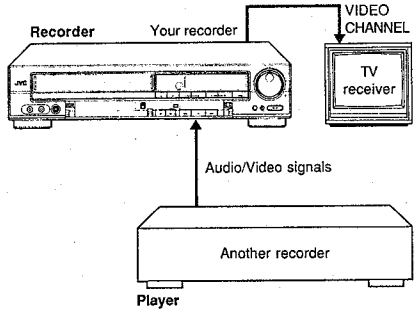


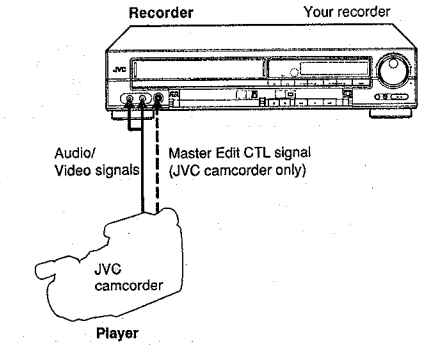
- Displayed for 5 seconds.

WHY: All the recorder's timer programs (1 – 7) are preset.
WHAT TO DO: Cancel unnecessary programs, and transfer again.

For Editing







Editing To/From Another Recorder

Your video recorder can be used as either the recording deck or the source player when editing tapes.

PREPARATION

1. Connect the player's AUDIO/VIDEO connector to the recorder's AUDIO/VIDEO connector.
2. Load the source tape in the player and the recording tape in the recorder.
3. Engage the recorder's AUX mode.

OPERATION

4. Put the recorder in the Record-Pause mode.
5. Play back the source tape to search for a scene to be edited.
   - Use the JOG/SHUTTLE controls.
6. Press both the player's and recorder's PLAY button simultaneously.
7. Press the recorder's PAUSE button to stop editing.
8. Repeat steps 5 through 7 to continue editing.

NOTES:

- When using your recorder as a playback deck, select the TAPE DUB mode with the remote's PICTURE button. ☞ p.21
- If you do not want to record on-screen messages on the edited tape, cancel the on-screen display. ☞ p.15

NOTES:

- Suitable leads can be obtained from your dealer.
- Connections made to the front panel Video and Audio inputs automatically override the rear panel AUDIO/VIDEO input connection. If you wish to edit with another machine connected to the rear input connector, make sure that there is nothing connected to the front connectors.

Editing From A JVC Camcorder

Tape-to-tape editing is also possible using a JVC camcorder (equipped with playback facility) as the player and your recorder as the recording deck. In this case, the recorder's PAUSE terminal can be used to accept Master Edit Control commands from the camcorder.

PREPARATION

1. Connect the camcorder's AV OUT connector to the recorder's front panel V(Video) and A(Audio) connectors.
2. Connect the AV output cable's mini-plug to the PAUSE terminal of the recorder.
   - If the camcorder is equipped with the Master Edit Control system, you can control the recorder using the camcorder's controls. See the camcorder's instruction manual for operating procedures.
   - With this connection, you can also use the camcorder as a video camera for direct recording onto the recorder's tape. Put the recorder in Record-Pause and use the camcorder's start/stop trigger to start and pause recording. (For direct recording with a separate video camera, a camera adapter is necessary.)

For Convenience

Setting The Clock Forward Or Backward By One Hour (Daylight Saving Time Adjustment)

TO ADVANCE THE TIME BY ONE HOUR

1. Press the remote control's SUMMER TIME ADJUST button and quickly release.
2. Press the TRANS button.
   - The revised time is transferred to the recorder.

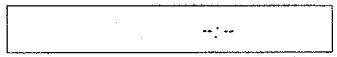
TO SET THE TIME BACK BY ONE HOUR

1. Keep SUMMER TIME ADJUST pressed for more than 2 seconds.
2. Press the TRANS button.
   - The revised time is transferred to the recorder.

Turning Off The Display

The fluorescent display on your JVC recorder can be switched off at any time.

1. Press the DISPLAY OFF button on the recorder. The lights in the display will go out.

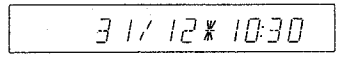


2. To restore the display, press the DISPLAY OFF button again.

Locking The Recorder's Controls

To avoid unwanted operation and prevent accidental recording or other interference, use the Child Lock function.

1. Press the remote control's OPERATE (VTR) button to turn the recorder's power off. Keep this button pressed for about 2 more seconds after the power LED indicator has gone off.
   - The Child Lock indicator (⚷) will appear between the date and time on the display panel.



2. Child Lock is automatically deactivated when you switch the recorder's power on again with the remote's OPERATE (VTR) button.
   - Pressing the TIMER button during timer-recording also deactivates the Child Lock mode.

NOTES:

- While the Child Lock mode is engaged, make sure you keep your remote control in a safe place inaccessible to children.
- Timer-recording is possible in the Child Lock mode. After timer-recording has been performed, the Child Lock mode remains in effect.

Remote A/B Code Switching

The remote control is capable of controlling two JVC video recorders independently; one set to respond to your remote control's A code control signals and another set to respond to B code control signals. The remote control is preset to send A code signals (indicated by " A CODE " on the LCD) because your video recorder is initially set to respond to A code signals. You can easily modify your video recorder to respond to B code signals.

1. Unplug the recorder's power cord from the AC outlet.
2. Press the A/B CODE button. (" B CODE " will appear on the LCD.)
3. Plug the power cord back into the AC outlet. Do not use other remote controls at this stage.
4. Turn the recorder power on using the remote control's OPERATE (VTR) button. The recorder will now only respond to B code signals.

CAUTION:

Some TV sets may malfunction in response to the B mode. If this happens switch back to the A mode.

ENGLISH

For Reception

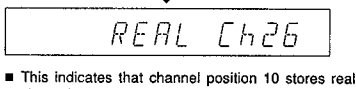
Changing Preset Channels

TO CHECK STORED REAL CHANNELS

Use the remote control. First turn on the recorder.

1 Press TV PROGRAM (VTR) to select the channel position of the stored real channel whose number you want to know. (e.g. PR. 10)

2 Press CH.



- This indicates that channel position 10 stores real channel 26.

3 To check other channel positions, press TV PROGRAM (VTR).
- Either "STORED xx" or "SKIPPED xx" will appear, followed by "REAL Ch xx" or "REAL CC xx".

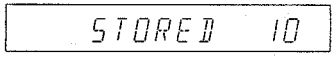
4 The Channel Set mode will be cancelled in about 10 seconds unless you call up another channel position. Do not press the CH button; this alternates between Ch and CC bands.

TO DELETE STORED CHANNELS

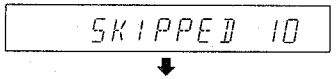
Use the remote control. First turn on the recorder.

1 Press TV PROGRAM (VTR) to select the channel position you want to skip. (e.g. PR. 10)

2 Press CH.



3 Press SKIP.

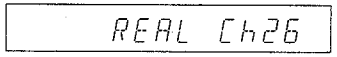


- This indicates that real channel 26 has been deleted from channel position 10.

TO STORE NEW CHANNELS

Use the remote control. First turn on the recorder.

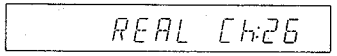
1 Press CH.

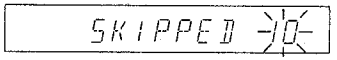


2 Press CH again and keep it pressed until the real channel number starts blinking.

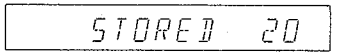
3 Press CH to change the band between Ch and CC, if necessary.

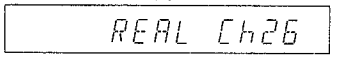
4 Press numeric keys to input the number of the real channel you want to store. (e.g. Ch 26.)





5 Press numeric keys to input the number of a vacant channel position (e.g. 20), and hold the key for the 2nd entry until the display changes to "STORED 20".

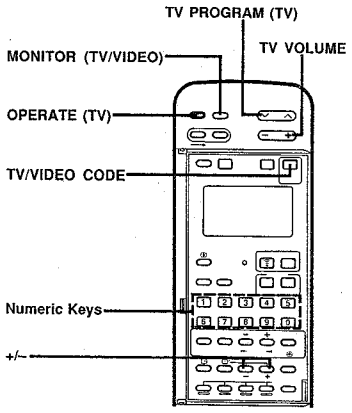




- The Channel Set mode will be cancelled automatically after about 60 seconds.

Using The Remote Control For TV Operation

The provided remote control can operate the basic functions of your television. In addition to JVC televisions, other manufacturers' televisions listed here can also be controlled by setting the remote control to the corresponding TV code. The remote control's default code is "1", which enables control of most JVC televisions without re-setting. If your JVC television is equipped with 10+ and 20+ buttons on its remote control, you have to set the TV code to "2".



CODE	TV BRAND NAME
1	JVC
2	JVC
3	BRANDT NORDMENDE SABA TELEAVIA TELEFUNKEN THOMSON
4	FERGUSON
5	PHILIPS
6	BLAUPUNKT GRUNDIG
7	SONY
8	PANASONIC
9	PANASONIC
0	GRAETZ ITT LUXOR SALORA SELECO

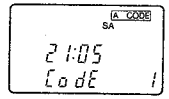
IMPORTANT

Although the provided remote control unit is compatible with JVC televisions, as well as many TV models manufactured by others, it is possible that the provided remote control will not work with your TV, or in some instances, will have limited function capability.

Setting The TV Code

1 Press TV/VIDEO CODE for longer than 2 seconds.
- The LCD will show the current code (initially "Code 1").

2 Press a numeric key corresponding to the code number for your TV's brand.
- The LCD will return to the clock mode after 2 seconds.



NOTES:
- TV code setting is not possible unless the clock has been set.
- Whenever you replace batteries in the remote control or initialise the LCD memory (☞p.5), it is necessary to re-set the TV code, if your television is not a Code 1 JVC TV.

To Control Your Television With Buttons Exclusively For TV

- Press OPERATE (TV) to turn the TV power on.
- Press MONITOR (TV/VIDEO) to switch the TV between TV and VIDEO (or AV) mode.
- Press TV PROGRAM (TV) to select the TV's channel.
- Press TV VOLUME to adjust the TV's sound volume.

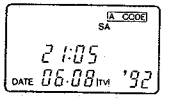
NOTES:
- The TV PROGRAM (TV) button does not function with televisions using Code 3.
- The MONITOR (TV/VIDEO) button does not function with televisions using Code 4.
- With some televisions, the OPERATE (TV) button functions only to turn the TV power off, and the MONITOR (TV/VIDEO) button functions only to switch the TV to the VIDEO (AV) mode.

To Control Your Television With Additional Buttons

The numeric keys can also be used to select the TV's channel by setting the remote control to the TV mode.

1 Press TV/VIDEO CODE.
- "TV" will appear on the LCD.

2 Use the numeric keys and +/– to select the TV's channel while "TV" is on the LCD.
- With televisions using Code 1, 4, 5, 7, 8 or 9, both the +/– buttons correspond to the 1-digit/2-digit entry switching button (often labelled -/--) of your TV's remote control.
- With televisions using Code 2, 6, or 0, the – button corresponds to the 10+ button, and the + button, to the 20 + button of your TV's remote control.



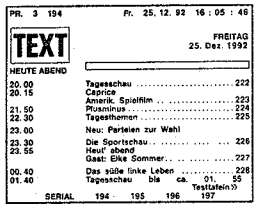
NOTE:

The way these buttons are used is determined by your TV. Use these buttons as instructed for your TV's remote control.

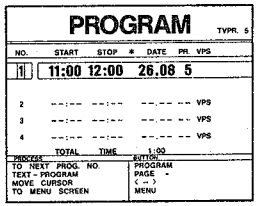
Using The Optional Teletext Adapter

Teletext services have established themselves as one of the most flexible sources of information and broadcast schedules available to TV and video users. Your video recorder is ready to take full advantage of these services. By connecting an optional teletext adapter (☞ Specifications), you'll not only be able to view the vast number of teletext pages now available, you'll be able to transfer broadcast schedule data directly to your recorder's timer for instant, automatic timer programming. You'll also be able to make full use of your remote control's capabilities, with all the dual or triple function controls working as intended. Here are just a few examples of features available to you when you connect an optional teletext adapter.

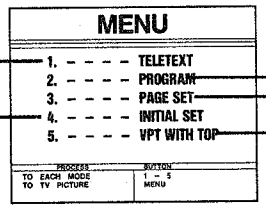
TELETEXT
- View broadcast teletext pages.
- Several page access modes are available for quick, convenient location of pages you want to see.
- You can program the video recorder's timer directly using TV schedule pages.


PR. 3 194
Fr. 25. 12. 92 16 : 05 : 46
TEXT
FREITAG
25. Dez. 1992
HEUTE ABEND
20. 00 Tagesschau ... 223
20. 15 Caprice
Amerik. Spielfilm ... 223
21. 50 Plusminus ... 224
22. 30 Tagesthemen ... 225
23. 00 Neu: Parteien zur Wahl
23. 30 Die Sportschau ... 226
23. 55 Heut' abend
Gast: Elke Sommer ... 227
00. 40 Das süße finke Leben ... 228
01. 40 Tagesschau bis ca. 01. 55
Testtafeln »
SERIAL 194 195 196 197

PROGRAM
- Check timer recording data on the colour on-screen display.
- Program the timer manually with the remote's numeric keys.



PAGE SET
- You can preset favourite or often-referred-to pages for immediate access.
- Up to four pages can be stored on each of the numeric keys, for a total of 40 pages.



VPT WITH TOP
- TOP automatic teletext timer programming.
- Convenient colour-coded page access.

*"5.- - - - VPT WITH TOP" only appears when the video recorder's tuner is tuned to a station transmitting TOP broadcasts. (Applicable only in certain areas.)

INITIAL SET

LANGUAGE
- Select one of four languages (English, German, Italian, or Swedish) for on-screen messages.

CLOCK ADJUST
- Set the recorder's clock manually using the numeric keys.
- Set the recorder's clock automatically by reading teletext time information.

ATTENTION

Some buttons on the remote control unit are labelled with pictograms indicating the functions that can be used when the VPT adapter is connected. When reading the VPT adapter's instruction manual, keep in mind the correspondence between these pictograms and the labels referred to in the instruction manual:

- : LARGE/NORMAL
- : REVEAL
- : TIMED PAGE
- : RESET
- : HOLD
- : MIX
- → : ROTATE

Display Panel Messages

Displayed Message	When It Appears, What It Means
During Clock Set	
31/12 10:30	"31st December, 10:30" is successfully transferred.
During Program Set	
PROGRAM 1	"Program 1" has been opened/ set/cancelled/successfully transferred.
DATE 31/12	"31st December" is input for the recording start date.
REPT 31/12	"Repeat" command is input for recording of a weekly serial.
DAILY 31/12	"Daily" command is input for recording of a daily serial.
START 11:00	"11:00" is input for the recording start time.
STOP 12:30	"12:30" is input for the recording stop time.
VPS PR. 10	"10" is input as the channel to be recorded, with VPS ON.
VPS ON	""VPS" status is changed from OFF to ON. Displayed for 2 seconds.
VPS OFF	"VPS" status is changed from ON to OFF. Displayed for 2 seconds.
During Channel Set	
REAL Ch 02	"Real Channel 02 in Ch band" is stored.
REAL CC 02	"Real Channel 02 in CC band" is stored.
REAL Ch :15	"Real Channel 15 in Ch band" is received, but not stored.
SKIPPED-10-	Channel position "10" is currently called up, and ready for input.
STORED 10	Received real channel has been stored in channel position "10".
FINE - Ch 15	"Fine tuning" is engaged for "Real Channel 15 in Ch band"
During Normal Operation	
PLAY	Normal playback is in progress.
STOP	Tape has been stopped.
STILL	A still picture is being viewed.
FF	Fast-forwarding.
REW	Rewinding.
REC 10	Recording "Channel 10".
REC AUX	Recording "External Input".
REC 1:30	Recording with the Off Timer set to shut off in 1 hour 30 minutes.
PAUSE 10	Recording is paused.
TIMER REC	Timer-recording is in progress.
FWD SLOW	Slow motion playback is in progress.
FWD SEARCH	Forward search is in progress.
REV SEARCH	Reverse search is in progress.
SKIP	Skip Search is in progress.
BLANK	Blank Search is in progress.
INDEX + 9	Searching for the 9th index code in the forward direction.
INDEX – 4	Searching for the 4th index code in the reverse direction.
INDEX MARK	Index code is being marked.
REPEAT	Repeat playback is in progress.
PR. 10	Channel 10 is being received.
VPS PR.10	A VPS programme is being received on channel 10.
AUX INPUT	External input mode.
EJECT	Cassette is being ejected.

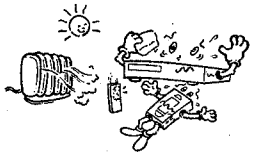
Displayed Message	When It Appears, What It Means
During Next Function Memory	
REW – OFF → OFF	Will rewind to the beginning and then shut off automatically.
REW – PLAY → PLAY	Will rewind to the beginning and then start playback automatically.
REW – TIMER → TIMER	Will rewind to the beginning and then enter the timer mode automatically.
REW – EJECT → EJECT	Will rewind to the beginning and then eject the tape automatically.
Clock and Counter Displays	
4:30:15	Tape counter reading of "4 hours, 30 minutes, 15 seconds".
M 4:30:15	Same as above with Counter Memory ON.
REMAIN 2:24	2 hours and 24 minutes of recording time remaining on the tape.
31/12 10:30	It is 31st December, 10:30. (Standard date/time display when recorder power is turned off)
31/12 ⚷ 10:30	Same as above with Child Lock ON.
TIMER 10:30	It is 10:30 and the Timer Standby mode is engaged.
SET CLOCK	The clock is not set. Please set it.
SET CLOCK ⚷	Same as above with Child Lock ON.
TIMER REC → TAPE END	End of tape was reached during timer-recording.
--:--	Display is turned OFF.
Error Messages	
NO CASS	There is no cassette in the recorder.
NO REC TAB	The cassette's record tab is removed.
NO PROGRAM	No program has been preset.
TRANS ERR	Transfer is rejected due to wrong data.
PROG FULL	Transfer is rejected due to no vacant programs.
Other Messages	
GOOD MORNING → GOOD AFTERNOON → GOOD EVENING	Automatic greetings when the recorder is turned on.
GOOD-BYE GOOD NIGHT	Automatic greetings when the recorder is turned off.

NOTES:

This list represents the various types of messages your recorder is capable of generating. Actual messages displayed by your recorder (esp. if date, time, channel, tape counter reading, or other variables are involved) will differ slightly from those listed here.

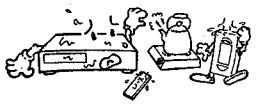
Precautions

Please follow these safety precautions. Not doing so may result in damage to the recorder, remote control, or video cassette.



Avoid extreme heat and direct sunlight

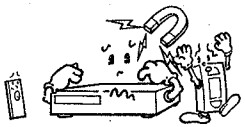
Avoid extreme cold



Avoid extreme humidity

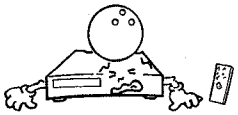
Avoid dust

Avoid places subject to vibrations

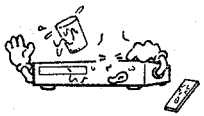


Avoid strong magnetic fields

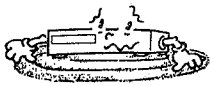
Do not block the recorder's ventilation openings



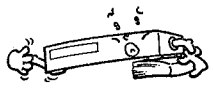
Do not place anything heavy on the recorder or remote control



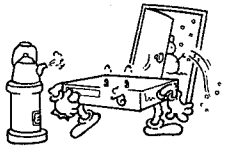
Do not place anything which might spill on top of the recorder or remote control



Do not place the recorder on cushions, pillows, or thick carpeting

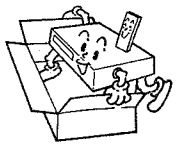


Use the recorder in a stable, horizontal position only



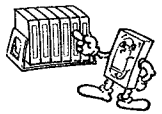
Beware of moisture condensation

Moisture in the air will condense on the recorder when you move it from a cold place to a warm place, or under extremely humid conditions — just as water droplets form on the surface of a glass filled with cold liquid. Moisture condensation on the head drum will cause damage to the tape. In conditions where condensation may occur, keep the recorder's power turned on for a few hours to let the moisture dry.



When transporting

- Be sure to remove cassette from recorder before packing
- Avoid violent shocks to the recorder during packing and transport



Place cassettes in cassette cases and store vertically

Specifications

GENERAL

Power requirement	:	AC 220 – 240 V~, 50/60 Hz
Power consumption	:	24 W
Temperature	:	5°C to 40°C (Operating)
	:	–20°C to 60°C (Storage)
Operating position	:	Horizontal only
Dimensions (WxHxD)	:	435 x 95 x 345 mm
Weight	:	5.2 kg
Format	:	VHS PAL standard
Tape width	:	12.65 mm
Tape speed	:	23.39 mm/sec
Maximum recording time	:	240 min. with E-240 video cassette

VIDEO

Signal system	:	PAL colour and CCIR monochrome signals, 625 lines/50 fields
Recording system	:	Rotary two-head helical scan system with a slant double-azimuth combination video head
Input	:	0.5 to 2.0 Vp-p, 75 ohms, unbalanced
Output	:	1.0 Vp-p, 75 ohms, unbalanced
Signal-to-noise ratio	:	43 dB (Rohde & Schwarz noise meter)
Horizontal resolution	:	250 lines

AUDIO

Recording system	:	Longitudinal track
Input	:	–3.8 dBs, (CENELEC standard) more than 50 k-ohms, unbalanced
Output	:	–3.8 dBs, (CENELEC standard) less than 1 k-ohm, unbalanced (100 k-ohms, load)
Frequency range	:	70 Hz to 10,000 Hz

TUNER

Tuning system	:	Frequency synthesized tuner
TV channel storage capacity	:	48 positions (+ AUX position)
Channel coverage	:	VHF 47 – 111 MHz 111 – 300 MHz 302 – 470 MHz (Hyper band for PAL) UHF 470 – 862 MHz
Aerial output	:	UHF channel 36 (adjustable 32 – 40)

TIMER

Clock reference	:	Quartz-crystal
Programme capacity	:	1-year/8-programme timer
Memory backup time	:	60 min.

ACCESSORIES

Provided accessories	:	Aerial cable Infrared remote control unit "R6" battery x 2
Optional accessories (EG)	:	VPV adapter VU-V120E VPT adapter VU-V140E
Optional accessories (E)	:	VPS adapter VU-V110E VPV adapter VU-V120E VPS/VPV adapter VU-V100E VPT adapter VU-V140E VPS/VPT adapter VU-V150E

Design and specifications subject to change without notice.

ENGLISH

In Case Of Difficulties

POWER AND TAPE TRANSPORT PROBLEMS

Symptoms	Check points
No power is applied to the recorder.	■ Is the power cord disconnected? — Connect it.
Clock is functioning properly, but the recorder cannot be powered.	■ Is "TIMER" displayed on the display panel? — Press the TIMER button to extinguish the display.
Tape does not run during recording.	■ Is "PAUSE" displayed on the display panel? — Press the PLAY button to extinguish the display.
Tape stops during rewind or fast-forward.	■ Is the C. MEMORY button pressed? — Press again to make "M" disappear from the display panel.
Tape will not rewind or fast-forward.	■ Is the tape already fully rewound or fast-forwarded? — Check the cassette.

RECORDING PROBLEMS

Symptoms	Check points
Recording cannot be started.	■ Is a cassette loaded? ■ Is the safety tab on the cassette removed? — Reseal the slot with adhesive tape.
TV broadcasts cannot be recorded.	■ Has "AUX" been selected? — Set to the desired channel.
Tape-to-tape editing is not possible.	■ Is the camcorder or another video recorder correctly connected? ■ Are all necessary power switches turned ON? ■ Has "AUX" been selected? — Set to "AUX".
Camera recording is not possible.	■ Is the camcorder correctly connected? ■ Has "AUX" been selected? — Set to "AUX".
Timer recording is not possible.	■ Have you set the clock correctly and programmed the timer correctly? — Check once again. ■ Is "TIMER" displayed on the display panel? — If not, press the TIMER button to display "TIMER".

PLAYBACK PROBLEMS

Symptoms	Check points
Playback picture does not appear while the tape is running.	■ If you are using RF OUT connection, is the TV receiver's channel selector set to the correct video channel? — Set it to the RF converter channel (UHF 36). (☞p.8) ■ If you are using AV connection, is the TV receiver set to the AV mode? — Set it to the AV mode.
Playback is repeated.	■ Is the REPEAT switch set to either FULL or INDEX? — Set it to OFF.
Noise appears during visual search.	■ This is normal.
Noise appears during normal playback.	■ Is the automatic tracking mode engaged? — Try manual tracking. (☞p.20)
Noise appears during slow motion playback.	— Try manual tracking. (☞p.20)
Noise appears during still playback.	— Press Pause/Still a few times to remove the noise bars from the screen.
Playback picture is blurred or interrupted while TV broadcasts are clear.	■ Video heads may be dirty. — Head cleaning is necessary. Consult your JVC dealer. (☞p.39)

OTHERS

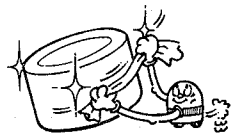
Symptoms	Check points
Whistling or howling is heard from TV during camera recording.	■ Move VideoMovie or camera's microphone away from TV or reduce TV sound volume.
Remote control's LCD clock time cannot be transferred to the recorder.	■ Is "TIMER" displayed on the display panel? — Press the TIMER button to extinguish the display.
Some channels are skipped over when scanning channels.	■ Those channels are preset to be skipped over. If you need them, restore them. (☞p.32)
Channel cannot be switched.	■ Is recording in progress? — Press the PAUSE button, change the channel, and press the PLAY button.
Remote control does not function.	■ Are the batteries discharged? — Replace with new ones. ■ Is the A/B CODE indicator showing the proper code for the recorder being operated? — Press the A/B CODE button for the correct setting.
The remote control's time display changed to "0:00" and is blinking.	— The remote control's batteries are exhausted. Replace all the batteries and set the clock again.

ATTENTION:
This recorder contains microcomputers. External electronic noise or interference could cause malfunctioning. In such cases, switch the power off and unplug the power cord. Then plug it in again and switch on. Take out the cassette. After checking the cassette, operate the unit as usual.

Special Note On Head Cleaning

Accumulation of dirt and other particles on the video heads may cause the playback picture to become blurred or interrupted. Although this model is equipped with a built-in head cleaner which automatically cleans the heads, reducing the likelihood of dirty heads, if such troubles are encountered please consult the nearest JVC dealer.

Auto Head Cleaner



A built-in head cleaner automatically cleans the video heads and head drum whenever a tape is loaded or unloaded to reduce head clogging.